

# **FEDERAL ITEM IDENTIFICATION GUIDE**

## **OPHTHALMIC LAPS AND LENSES**

This Reprint replaces FIIG A220, dated December 4, 2009.



Commander

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This Federal Item Identification Guide for Supply Cataloging is issued under the authority of Department of Defense Instruction 5025.7.

The use of this publication is mandatory for US. Federal Activities participating in Federal Catalog System Operations.

BY ORDER OF THE DIRECTOR

/s/

Commander

Defense Logistics Information Service

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## GENERAL INFORMATION

### 1. Purpose and Scope

This Federal Item Identification Guide (FIIG) is a self-contained document for the collection, coding, transmittal, and retrieval of item characteristics and related supply management data for an item of supply for logistical use. This FIIG is to be used to describe items of supply identified by the index of approved item names appearing in this section.

### 2. Contents

This FIIG is comprised of the following:

- Index of Approved Item Names Covered by this FIIG
- Applicability Key Index
- Section I - Item Characteristics Data Requirements
- Section III - New text that should be here.
- Appendix A - Reply Tables
- Appendix B - Reference Drawing Groups (as applicable)
- Appendix C - Technical Data Tables (as applicable)

#### a. Index of Approved Item Names Covered by this FIIG:

The index lists the approved item names with definitions and item name codes as they appear in Cataloging Handbook H6, applicable to this FIIG. In addition, each name entry is assigned an applicability key for use in relating the characteristics requirements in Section I to the specific item name.

#### b. Applicability Key Index:

The purpose of this index is to provide the user with a ready reference for determining the specific requirements which are applicable to a given approved item name. This index lists all requirements in sequence as they appear in the FIIG. The applicability of a Master Requirement Coded requirement is indicated by the column headed by the specific item name applicability key as follows:

(1) The letter "X" indicates the requirement must be answered for a full descriptive item.

(2) The letters "AR" indicate the requirement is to be answered as required by (1) instructional notes within the FIIG; (2) when the reply is predicated on replies to a related main requirement; or (3) when an asterisk (\*) is used in conjunction with the applicability key column in Section I.

(3) A blank in the column indicates the requirement is not applicable to the specific item name.

c. Section I - Item Characteristics Data Requirements:

This section contains the physical and performance characteristics requirements needed to describe and identify an item of supply. These characteristics differentiate one item from all other items of supply and are to be used to meet the needs of all supported functions. This section is arranged in columns. Identification of each column and instructions pertinent thereto are as follows:

(1) Applicability Key:

The first column shows the applicability key(s) for each requirement. It indicates whether the requirement need be satisfied for the item being identified. "ALL" indicates that the requirement must be answered for all items covered by the FIIG. One or more alphabetic character(s) or group of one or more alphabetic characters indicates a response is required when describing items with an approved item name or names represented by the key(s). An asterisk (\*) used in conjunction with any applicability key indicates that the characteristic stated in the requirement may not be applicable to all items covered by the FIIG.

(2) Master Requirement Codes (MRC):

A four-position code which is assigned to a FIIG requirement for identification of the requirement, cross-referencing requirements in the various sections and appendices of the FIIG, and for mechanized processing and retrieval of FIIG generated data. Absence of a MRC for a requirement indicates a lead-in to requirements with individual MRCs in Appendix B.

(a) The coding technique for providing MULTIPLE/OPTIONAL responses will not be used for a Section I requirement assigned Mode Code A or L that leads to Appendix B sketches with dimensional requirements.

(b) Identified Secondary Address Coding:

This technique is for extending the Master Requirement Code so that a unique address is provided for each application of the requirement in relation to the item and is authorized only as instructed within the requirement. Responses coded through this technique will always consist of the following: (1) Master Requirement Codes, (2) indicator code (a single numeric character determined by the number of positions contained), (3) identified secondary address code (1 to 3-digit alphabetic codes determined by the number of predicted replies), (4) the mode code, (5) the reply code and/or clear text response, and (6) end with a record separator (\*). Steps (1) through (6) are repeated for each application of the requirement.

(c) AND/OR coding:

A technique for extending the Master Requirement Code to provide a distinctive address for multiple responses to the same requirement. Responses coded through this technique will always consist of (1) Master Requirement Code, (2) mode code, (3) the response or reply code (as instructed by the requirement), (4) a single dollar sign (\$) for an OR condition, or a double dollar sign (\$\$) for an AND condition, (5) the mode code, (6) the response or reply code

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(followed by conditions (4) through (6) for each of the multiple responses) and (7) end with a record separator (\*). NOTE: Apply this technique only when instructed by the requirement sample reply (e.g.).

(3) Mode Code:

A one-position alphabetic code that specifies the manner in which a response will be prepared. Each requirement assigned a MRC is also assigned a mode code. Sample replies follow each FIIG requirement displaying the proper construction of a response for the assigned mode code. The response to a requirement will always be prepared in accordance with the assigned mode code and sample reply except in the following instances:

(a) Use of E Mode Code replies is not authorized. If a reply needed to describe an item is not listed in the applicable table, contact the FIIG Initiator.

(b) Mode Code K may not be used for any requirement unless instructed by the requirement instructions.

(4) Requirement:

This portion includes the characteristics data elements and data use identifiers required to identify and differentiate one item of supply from another, narrative definitions, and explanations as to use and method of expression. Instructions for coding and preparing replies are also provided.

(5) Reply Code:

A code that represents an established authorized reply to a requirement.

d. Section III - Supplementary Technical and Supply Management Data:

This section includes those characteristics requirements necessary to support specific logistics functions other than National Stock Number assignment.

e. Appendix A - Reply Tables:

Tables of authorized replies to requirements and reply codes when the tables are too lengthy for inclusion in Section I/III, when applicable.

f. Appendix B - Reference Drawings:

This appendix contains representative illustrations which portray specific variations of one or more generic characteristics. If reference drawings contain requirements pages to be used in conjunction with illustrations for dimensioning purposes, the requirements pages will contain Master Requirement Codes, mode codes, and a statement of the requirement. A response to requirements on a requirements page is necessary only for those Master Requirement Codes applicable to the illustration selected.

g. Appendix C - Technical Data Tables:

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This appendix contains conversion charts and similar data pertinent to the requirements in Section I/III, when applicable.

3. Enter administrative MRC CLQL immediately following the last FIIG requirement reply, as instructed below:

<u>MRC</u>	<u>Mode</u> <u>Code</u>	<u>Requirement</u>	<u>Example</u>
CLQL	G	COLLOQUIAL NAME (common usage name by which an item is known)	CLQLGW OVEN WIRE CLOTH*

#### 4. Special Instructions and Indicator Definitions

##### a. Measurements:

Unless otherwise indicated within a requirement example, enter all measurements in decimal form, carried to the nearest three decimal places, with a minimum of one digit preceding the decimal. For SI (metric), enter all measurements with a minimum of one digit before and after the decimal. For fraction to decimal conversion, see Appendix C.

##### b. Indicators:

A cross hatch (#) following an AIN, MRC, Reply Code or Drawing Number indicates for "ALL EXCEPT USA" use only.

#### 5. Indexes

##### a. Index of Data Requirements

This index is arranged in alphabetic sequence by Master Requirement Code, cross-referenced to the applicable data requirement and page number(s).

##### b. Index of Approved Item Names

This index is arranged in alphabetic sequence referenced to Applicability Key.

##### c. Applicability Key Index

This index is arranged in Applicability Key Sequence.

#### 6. Maintenance

Requests for revisions and other changes will be directed to:

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INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

## INDEX OF APPROVED ITEM NAMES COVERED BY THIS FIIG

<u>Approved Item Name</u>	<u>INC</u>	<u>App Key</u>
LAP, OPHTHALMIC, CYLINDRICAL	19985	AA
A tool with a known surface diopter curvature used in the grinding or polishing of lens blanks to a prescribed surface having unequal radii of curvature.		
LAP, OPHTHALMIC, SPHERE	20037	AB
A tool with a known surface diopter curvature used in the grinding or polishing of lens blanks to a prescribed surface having the same radius of curvature in every meridian.		
LENS BLANK, OPHTHALMIC, BIFOCAL, FINISHED	30670	AF
A transparent optical element consisting of a major blank and a bifocal segment. The blank and segment have been pressed in a mold to an approximate size and shape, and are ground and polished to a finished diopter curvature on both surfaces.		
LENS BLANK, OPHTHALMIC, BIFOCAL, SEMIFINISHED	30300	AF
A transparent optical element consisting of a major blank and a bifocal segment. The blank and segment have been pressed in a mold to an approximate size and shape, and are ground and polished to a finished diopter curvature on one surface only.		
LENS BLANK, OPHTHALMIC, COMPOUND, SEMIFINISHED	30302	AC
A transparent molded optical element having a spherical diopter base curve and a cylindrical diopter cross curve, an approximate size and shape, and has been ground and polished to a finished curvature on one surface only.		
LENS BLANK, OPHTHALMIC, ROUGH	22827	AE
A transparent optical element pressed in a glass mold to an approximate size and shape that requires grinding and polishing to prescribed surface diopter power.		
LENS BLANK, OPHTHALMIC, SPHERE, SEMIFINISHED	30303	AC
A transparent molded optical element having equal spherical diopter curvatures, an approximate size and shape, and has been ground and polished to a finished curvature on one surface only.		

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<u>Approved Item Name</u>	<u>INC</u>	<u>App Key</u>
LENS BLANK, OPHTHALMIC, TRIFOCAL, SEMIFINISHED	30301	AG
A transparent optical element consisting of a major blank, a bifocal segment, and a trifocal segment. The blank and segments have been pressed in a glass mold to an approximate size and shape, and are ground and polished to a finished diopter curvature on one surface only.		
LENS, OPHTHALMIC, COMPOUND	04121	AC
A transparent optical element having a spherical curve and a cylindrical curve used to correct vision defects of the eye.		
LENS, OPHTHALMIC, PLANO CYLINDER	30298	AD
A transparent optical element having a plano diopter base curve and a cylindrical diopter cross curve used to correct astigmatism (multifocus) vision of the eye.		
LENS, OPHTHALMIC, SPHERE	04122	AC
A transparent optical element having equal spherical diopter curvatures used to correct hyperopic (farsightedness) or myopic (nearsightedness) conditions of the eye.		
LENS, OUTSERT, LASER-BALLISTIC	48973	AC
A dyed polycarbonate lens that attaches to the outside of a MASK, CHEMICAL-BIOLOGICAL to provide protection from two different wavelengths and low velocity ballistic fragments.		

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## APPLICABILITY KEY INDEX

	<u>AA</u>	<u>AB</u>	<u>AC</u>	<u>AD</u>	<u>AE</u>	<u>AF</u>	<u>AG</u>
NAME	X	X	X	X	X	X	X
STYL	X	X	X	X	X	X	X
ABGL	AR	AR	AR	AR	AR	AR	AR
ABMZ	AR	AR	AR	AR	AR	AR	AR
ABNM	AR	AR	AR	AR	AR	AR	AR
AKQV	AR	AR	AR	AR	AR	AR	AR
AKQW	AR	AR	AR	AR	AR	AR	AR
HGTH	AR	AR	AR	AR	AR	AR	AR
ABGL	AR	AR	AR	AR	AR	AR	AR
ABMZ	AR	AR	AR	AR	AR	AR	AR
ABNM	AR	AR	AR	AR	AR	AR	AR
AKQV	AR	AR	AR	AR	AR	AR	AR
AKQW	AR	AR	AR	AR	AR	AR	AR
AKQX	AR	AR	AR	AR	AR	AR	AR
AKQY	AR	AR	AR	AR	AR	AR	AR
HGTH	AR	AR	AR	AR	AR	AR	AR
AKEL	X	X	X	X	X	X	X
AKZS			X	X	X	X	X
AKQL			AR	AR	AR	AR	AR
AAGR			X	X	X	X	X
AKQZ			AR	AR	AR	AR	AR
AKRA			AR	AR	AR	AR	AR
AKRB			AR	AR	AR	AR	AR
CWMT			AR	AR	AR	AR	AR
CWND			AR	AR	AR	AR	AR
CWNQ			AR	AR	AR	AR	AR
CWPF			AR	AR	AR	AR	AR
AKQM						X	X
AKQP	X	X					
AKQQ	X						
ALAP	X	X					
FEAT	AR	AR	AR	AR	AR	AR	AR
TEST	AR	AR	AR	AR	AR	AR	AR
SPCL	AR	AR	AR	AR	AR	AR	AR
ZZZK	AR	AR	AR	AR	AR	AR	AR
ZZZT	AR	AR	AR	AR	AR	AR	AR
ZZZW	AR	AR	AR	AR	AR	AR	AR
ZZZX	AR	AR	AR	AR	AR	AR	AR
ZZZY	AR	AR	AR	AR	AR	AR	AR
CRTL	AR	AR	AR	AR	AR	AR	AR
PRPY	AR	AR	AR	AR	AR	AR	AR
ELRN	AR	AR	AR	AR	AR	AR	AR
ELCD	AR	AR	AR	AR	AR	AR	AR
AGAV	AR	AR	AR	AR	AR	AR	AR
AKQT	AR	AR	AR	AR	AR	AR	AR
AJQC	AR	AR	AR	AR	AR	AR	AR
AFJK	AR	AR	AR	AR	AR	AR	AR
AWJN	AR	AR	AR	AR	AR	AR	AR

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SUPP	AR	AR	AR	AR	AR	AR	AR
ZZZP	AR	AR	AR	AR	AR	AR	AR
ZZZV	AR	AR	AR	AR	AR	AR	AR
PKQT	AR	AR	AR	AR	AR	AR	AR
EXQT	AR	AR	AR	AR	AR	AR	AR
SUWT	AR	AR	AR	AR	AR	AR	AR
ECWT	AR	AR	AR	AR	AR	AR	AR
SUCB	AR	AR	AR	AR	AR	AR	AR
EXME	AR	AR	AR	AR	AR	AR	AR
CXCY	AR	AR	AR	AR	AR	AR	AR

## SECTION I

APP  
Key MRC Mode Code Requirements

ALL

NAME D ITEM NAME

Definition: A NOUN, WITH OR WITHOUT MODIFIERS, BY WHICH AN ITEM OF SUPPLY IS KNOWN.

Reply Instructions: Enter the applicable Item Name Code. (e.g., NAMED04121\*)

ALL

STYL L STYLE DESIGNATOR

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE ITEM.

Reply Instructions: Enter the applicable group designator and style number from [Appendix B](#), Reference Drawing Group A, B and C. (e.g., STYLLA1\*)

ALL

AKEL H MATERIAL AND LOCATION

Definition: THE ELEMENT, COMPOUND, OR MIXTURE OF WHICH THE ITEM IS FABRICATED, EXCLUDING ANY SURFACE TREATMENT, AND ITS LOCATION.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below. (e.g., AKELHGSN000QM\*; AKELHGSN000AW\$HGSP000AW\*; AKELHGSN000AW\$\$HGSP000AW\*)

When multiple or optional materials are specified for more than one location, use AND/OR coding (\$\$/). (e.g., AKELHGSN000QM\$HGSP000QM\$\$HGSN000QN\$\$HGSP000QM\*)

Table 1  
REPLY  
CODE

REPLY (AD09)

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Key	MRC	Mode Code	Requirements
		ALC000	ALUMINUM
		BN0052 #	BRONZE, CAST, DIN1705, 2.1090.01 G-GUSN7ZNPB
		GSP000	GLASS, BARIUM (ophthalmic)
		GSQ000	GLASS, FLINT (ophthalmic)
		GSN000	GLASS, SODA-LIME (ophthalmic) (crown)
		FEA000	IRON, CAST
		PC0000	PLASTIC

Table 2

REPLY  
CODE

REPLY (AE46)

QN	BIFOCAL (reading segment)
AW	OVERALL (basic material of lap)
QM	SINGLE VISION (over-all basic material of the lens or that material to which a segment has been added)
QP	TRIFOCAL (intermediate segment)

AC, AD, AE, AF, AG

AKZS      D      LIGHT TRANSMISSION

Definition: AN INDICATION OF THE LIGHT TRANSMITTANCE CHARACTER OF THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AKZSDAB\*)

REPLY  
CODE

REPLY (AH07)

AC	TINTED (neutral absorption)
AD	TINTED SINGLE VISION WITH UNTINTED SEGMENT
AB	UNTINTED

AC\*, AD\*, AE\*, AF\*, AG\*

AKQL      B      TINTED AREA LIGHT TRANSMITTANCE IN PERCENT

Definition: THE PERCENT OF INFRARED AND ULTRAVIOLET RAYS CONTAINED IN LIGHT THAT PASSES THROUGH THE TINTED AREA OF THE ITEM.

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Key MRC Mode Code Requirements

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Reply Instructions: Enter the numeric value. (e.g., AKQLB15.0\*)

AC, AD, AE, AF, AG

AAGR L CROSS-SECTIONAL SHAPE STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE CROSS-SECTIONAL SHAPE OF THE ITEM.

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group D. (e.g., AAGRLD1\*)

AF, AG

AKQM J ADDITIONAL POWER RATING IN DIOPTERS

Definition: A SECTION AND/OR SECTIONS OF OPHTHALMIC GLASS WITH A HIGHER INDEX OF REFRACTION WHICH HAS BEEN ADDED TO THE MAJOR LENS, EXPRESSED IN DIOPTERS.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the added diopter value. (e.g., AKQMJQN0.750\*)

<u>REPLY CODE</u>	<u>REPLY (AE46)</u>
QN	BIFOCAL (reading segment)
QP	TRIFOCAL (intermediate segment)

AA, AB

AKQP B BASE CURVE IN DIOPTERS

Definition: THE CURVATURE FOR GRINDING A LENS TO THE DESIRED MERIDIAN OF LEAST REFRACTION, EXPRESSED IN DIOPTERS.

Reply Instructions: Enter the applicable diopter value. (e.g., AKQPB6.500\*)

When the source document specifies "plano" (no diopter value), enter 0.000. (e.g., AKQPB0.000\*)

AA

AKQQ B CROSS CURVE IN DIOPTERS

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Key MRC Mode Code Requirements

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Definition: THE CURVATURE FOR GRINDING A LENS TO THE DESIRED MERIDIAN OF GREATEST REFRACTION, EXPRESSED IN DIOPTERS.

Reply Instructions: Enter the applicable diopter value. (e.g., AKQQB7.250\*)

When the source document specifies "plano" (no diopter value), enter 0.000. (e.g., AKQQB0.000\*)

AA, AB

ALAP D FINISH INDICATOR

Definition: AN INDICATION OF WHETHER A LAP HAS BEEN FINISHED BY MACHINING TO A SPECIFIC DIOPTER POWER OR SEMIFINISHED BY MACHINING TO AN APPROXIMATE DIOPTER POWER.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ALAPDAM\*)

REPLY  
CODE

AL  
AM

REPLY (AA41)

FINISHED  
SEMIFINISHED (require additional machining for a specific diopter power)

ALL\*

FEAT G SPECIAL FEATURES

Definition: THOSE UNUSUAL OR UNIQUE CHARACTERISTICS OR QUALITIES OF AN ITEM NOT COVERED IN THE OTHER REQUIREMENTS AND WHICH ARE DETERMINED TO BE ESSENTIAL FOR IDENTIFICATION.

Reply Instructions: Enter the reply in clear text. Separate multiple replies with a semicolon. (e.g., FEATGADJUSTABLE NOSE CLIP\*; FEATGADJUSTABLE NOSE PIECE; DISPOSABLE\*)

ALL\*

TEST J TEST DATA DOCUMENT



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APP

Key MRC Mode Code Requirements

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Definition: THE SPECIFICATION, STANDARD, DRAWING, OR SIMILAR INSTRUMENT THAT SPECIFIES ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS OR TEST CONDITIONS UNDER WHICH AN ITEM IS TESTED AND ESTABLISHES ACCEPTABLE LIMITS WITHIN WHICH THE ITEM MUST CONFORM IDENTIFIED BY AN ALPHABETIC AND/OR NUMERIC REFERENCE NUMBER. INCLUDES THE COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE OF THE ENTITY CONTROLLING THE INSTRUMENT.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the 5-position CAGE Code, a dash, and the document identification number.

(e.g., TESTJA12345-CWX654321\*;

TESTJA1234A-654321\$\$JB5556A-663654\*;

TESTJAA2345-654321\$JB55566-663654\*)

<u>REPLY CODE</u>	<u>REPLY (AC28)</u>
C	DRAWING (This is the basic governing drawing, such as a contractor drawing, original equipment manufacturer drawing, etc.; excludes any specification, standard, or other document that may be referenced in a basic governing drawing)
A	SPECIFICATION (Includes engineering type bulletins, brochures, etc., that reflect specification type data in specification format; excludes commercial catalogs, industry directories, and similar trade publications, reflecting general type data on certain environmental and performance requirements and test conditions that are shown as "typical," "average," "nominal," etc.)
B	STANDARD (Includes industry or association standards, individual manufacturer standards, etc.)

ALL\*

SPCL G SPECIAL TEST FEATURES

Definition: TEST CONDITIONS AND RATINGS, OR ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS THAT ARE DIFFERENT, MORE CRITICAL, OR MORE SPECIFIC THAN THOSE SPECIFIED IN A GOVERNING TEST DATA DOCUMENT.

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Key    MRC            Mode Code    Requirements

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Reply Instructions: Enter the reply in clear text. (e.g., SPCLGSELECTED AND TESTED FOR NAVIGATIONAL SYSTEMS\*)

ALL\*

ZZZK            J            SPECIFICATION/STANDARD DATA

Definition: THE DOCUMENT DESIGNATOR OF THE SPECIFICATION OR STANDARD WHICH ESTABLISHED THE ITEM OF SUPPLY.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the Commercial and Government Entity (CAGE) Code of the entity controlling the document, a dash, and the document designator. The agency that controls the limited coordination document must be preceded and followed by a slash following the designator. The word canceled or superseded must be preceded and followed by a slash for the designator. Professional and industrial association specifications/standards are differentiated from a manufacturer's specification in that the data has been coordinated and published by the professional and industrial association. Include amendments and revisions where applicable.

(e.g., ZZZKJT81337-30642B\*;

ZZZKJS81349-MIL-D-180 REV1/CANCELED/\*;

ZZZKJP80205-NAS1103\*;

ZZZKJS81349-MIL-C-1140C/CE/\*;

ZZZKJT81337-30642B\$\$JP80205-NAS1103\*)

<u>REPLY CODE</u>	<u>REPLY (AN62)</u>
S	GOVERNMENT SPECIFICATION
T	GOVERNMENT STANDARD
D	MANUFACTURERS SOURCE CONTROL
R	MANUFACTURERS SPECIFICATION
N	MANUFACTURERS SPECIFICATION CONTROL
M	MANUFACTURERS STANDARD
B	NATIONAL STD/SPEC
A	PROFESSIONAL/INDUSTRIAL ASSOCIATION SPECIFICATION
P	PROFESSIONAL/INDUSTRIAL ASSOCIATION STANDARD

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APP  
Key MRC Mode Code Requirements

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NOTE FOR MRC ZZZT: IF THE SPECIFICATION/STANDARD CITED IN REPLY TO MRC ZZZK IS NONDEFINITIVE, REPLY TO MRC ZZZT. THIS REPLY IS THE DATA WHICH IS NOT RECORDED IN SEGMENT C.

ALL\* (See Note Above)

ZZZT J NONDEFINITIVE SPEC/STD DATA

Definition: THE NUMBER, LETTER, OR SYMBOL THAT INDICATES THE TYPE, STYLE, GRADE, CLASS, AND THE LIKE, OF AN ITEM IN A NONIDENTIFYING SPECIFICATION OR STANDARD.

Reply Instructions: Enter the applicable Reply Code from [Appendix A](#), Table 1, followed by the appropriate number, letter, or symbol. (e.g., ZZZTJTY1\*; ZZZTJTY1\$JSTA\*; ZZZTJTY1\$JSTA\*)

ALL\*

ZZZW G DEPARTURE FROM CITED DOCUMENT

Definition: THE TECHNICAL DIFFERENTIATING CHARACTERISTIC(S) OF AN ITEM OF SUPPLY WHICH DEPART(S) FROM THE TEXT OF A SPECIFICATION OR A STANDARD IN THAT IT REPRESENTS A SELECTION OF CHARACTERISTICS STATED IN THE SPECIFICATION OR STANDARD AS BEING OPTIONAL, OR A VARIATION FROM ONE OR MORE OF THE STATED CHARACTERISTICS, OR AN ADDITIONAL CHARACTERISTIC NOT STATED IN THE SPECIFICATION OR STANDARD.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZWGAS MODIFIED BY MATERIAL\*)

ALL\*

ZZZX G DEPARTURE FROM CITED DESIGNATOR

Definition: THE VARIATION WHEN THE ITEM IS IN CONFORMITY WITH A TYPE DESIGNATOR COVERED BY A SPECIFICATION OR STANDARD, EXCEPT IN REGARD TO ONE OR MORE TECHNICAL DIFFERENTIATING CHARACTERISTICS.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZXGAS MODIFIED BY MATERIAL\*)

ALL\*

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Key MRC Mode Code Requirements

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ZZZY	G	REFERENCE NUMBER DIFFERENTIATING CHARACTERISTICS
------	---	--------------------------------------------------

Definition: A FEATURE OF THE ITEM OF SUPPLY WHICH MUST BE SPECIFICALLY RECORDED WHEN THE REFERENCE NUMBER COVERS A RANGE OF ITEMS.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZYGCOLOR CODED LEADS\*; ZZZYGAS DIFFERENTIATED BY MATERIAL\*)

ALL\*

CRTL	A	CRITICALITY CODE JUSTIFICATION
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Definition: THE MASTER REQUIREMENT CODES OF THOSE REQUIREMENTS WHICH ARE TECHNICALLY CRITICAL BY REASON OF TOLERANCE, FIT, PERFORMANCE, OR OTHER CHARACTERISTICS WHICH AFFECT IDENTIFICATION OF THE ITEM.

Reply Instructions: Enter the Master Requirement Code for the requirement, the reply to which renders the item as being critical. (e.g., CRTLAMATL\*; CRTLAMATL\$ASURF\*)

Reply to this requirement only if the header record for the item identification for the item being identified has been coded as critical.

NOTE FOR MRC PRPY: IF DOCUMENT AVAILABILITY CODE B, D, F, OR H, REPLY TO MRC PRPY.

ALL\* (See Note Above)

PRPY	A	PROPRIETARY CHARACTERISTICS
------	---	-----------------------------

Definition: IDENTIFICATION OF THOSE CHARACTERISTICS INCLUDED IN THE DESCRIPTION FOR WHICH A NON-GOVERNMENT ACTIVITY HAS IDENTIFIED ALL OR SELECTED CHARACTERISTICS OF THE ITEM AS BEING PROPRIETARY AND THEREFORE RESTRICTED FROM RELEASE OUTSIDE THE GOVERNMENT WITHOUT PRIOR PERMISSION OF THE ORIGINATOR OF THE DATA.

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APP

Key MRC Mode Code Requirements

---

Reply Instructions: Enter the MRC codes of the individual characteristics of the description which are marked proprietary on the technical data, using AND coding (\$\$) for multiple characteristics. If all the MRCs are proprietary, enter the reply PACS. If none of the MRCs is proprietary, enter the reply NPAC. (e.g., PRPYAPACS\*; PRPYANPAC\*; PRPYAMATL\$\$ASURF\*)

ALL\*

ELRN G EXTRA LONG REFERENCE NUMBER

Definition: A REFERENCE NUMBER EXCEEDING 32 POSITIONS.

Reply Instructions: Enter the entire reference number. Do not include the 5-position Commercial and Government Entity (CAGE) Code. (e.g., ELRNGANN112036BIL060557LEN0313605UZ062365\*)

In determining quantity of characters in the reference number, count will be made after modification in accordance with Volume 2, Chapter 9, FLIS Procedures Manual, DoD 4100.39-M.

ALL\*

ELCD D EXTRA LONG CHARACTERISTIC DESCRIPTION

Definition: A DESCRIPTION THAT EXCEEDS 5000 CHARACTERS.

Reply Instructions: Enter the Reply Code from the table below. (e.g., ELCDDA\*)

REPLY  
CODE

A

REPLY (AN58)

ADDITIONAL DESCRIPTIVE DATA ON MANUAL  
RECORD

## SECTION III

APP

Key MRC Mode Code Requirements

---

ALL

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SECTION I

APP Key	MRC	Mode Code	Requirements
------------	-----	-----------	--------------

---

AGAV	G	END ITEM IDENTIFICATION
------	---	-------------------------

Definition: THE NATIONAL STOCK NUMBER OR THE IDENTIFICATION INFORMATION OF THE END EQUIPMENT FOR WHICH THE ITEM IS A PART.

Reply Instructions: Enter the reply in clear text.

(e.g., AGAVGFORKLIFT TRUCK, SMITH CORPORATION, MODEL 12, TYPE A\*;

AGAVG3930-00-000-0000\*)

ALL

AKQT	D	SPECIAL PACKAGING
------	---	-------------------

Definition: AN INDICATION OF SPECIAL PACKAGING REQUIRED FOR AN ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AKQTDAB\*)

<u>REPLY CODE</u>	<u>REPLY (AG93)</u>
AB	PR OF IDENTICAL LENSES
AC	PR OF LEFT AND RIGHT LENSES

ALL

AJQC	D	USER
------	---	------

Definition: A DESIGNATION INDICATING THE PERSONNEL, ORGANIZATION, PROFESSION, TRADE, AND THE LIKE (EXCEPT ARMY, AIR FORCE, MARINE CORPS, AND NAVY), FOR WHICH AN ITEM IS SPECIFICALLY DESIGNED.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AJQCDCC\*)

<u>REPLY CODE</u>	<u>REPLY (AF92)</u>
CA	AIRCRAFT FLIGHT CREW
CB	AIRCRAFT GROUND CREW
CC	GENERAL

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SECTION I

APP Key	MRC	Mode Code	Requirements
------------	-----	-----------	--------------

ALL

AFJK	J	CUBIC MEASURE
------	---	---------------

Definition: A MEASUREMENT OF VOLUME TAKEN BY MULTIPLYING THE LENGTH BY THE WIDTH BY THE HEIGHT OF AN ITEM AND RENDERED IN CUBIC UNITS.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., AFJKJB6.000\*; AFJKJC50.0\*)

<u>REPLY CODE</u>	<u>REPLY (AD42)</u>
C	CUBIC CENTIMETERS
F	CUBIC FEET
B	CUBIC INCHES
E	CUBIC METERS

ALL

SUPP	G	SUPPLEMENTARY FEATURES
------	---	------------------------

Definition: CHARACTERISTICS OR QUALITIES OF AN ITEM, NOT COVERED IN ANY OTHER REQUIREMENT, WHICH ARE CONSIDERED ESSENTIAL INFORMATION FOR ONE OR MORE FUNCTIONS EXCLUDING NSN ASSIGNMENT.

Reply Instructions: Enter the reply in clear text. (e.g., SUPPGMAY INCLUDE HOLE IN UPPER SUPPORT FOR MTG DURING SHIPMENT\*)

ALL

ZZZP	J	PURCHASE DESCRIPTION IDENTIFICATION
------	---	-------------------------------------

Definition: THE CONTROLLING ACTIVITY AND IDENTIFICATION OF A DOCUMENT USED IN LIEU OF A SPECIFICATION IN THE PROCUREMENT OF AN ITEM OF SUPPLY.

Reply Instructions: Enter the 5-position Commercial and Government Entity (CAGE) Code followed by a dash and the identifying number of the document.

(e.g., ZZZPJ81337-30642A\*)

ALL

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SECTION I

APP  
Key

MRC

Mode Code

Requirements

---

ZZZV

G

FSC APPLICATION DATA

Definition: THE JUSTIFICATION FOR THE ASSIGNMENT OF A FEDERAL SUPPLY CLASS (FSC) TO AN ITEM BASED ON THE CLASSIFICATION OF THE NEXT HIGHER CLASSIFIABLE ASSEMBLY.

Reply Instructions: Enter the name of the next higher classifiable assembly in clear text. (e.g., ZZZVGFUEL SYSTEM, GASOLINE ENGINE, NONAIRCRAFT\*)

ALL

CXCY

G

PART NAME ASSIGNED BY CONTROLLING  
AGENCY

Definition: THE NAME ASSIGNED TO THE ITEM BY THE GOVERNMENT AGENCY OR COMMERCIAL ORGANIZATION CONTROLLING THE DESIGN OF THE ITEM.

Reply Instructions: Enter the reply in clear text. (e.g., CXCYGLINE PROCESSOR CONTROL BOARD\*)



## Reply Tables

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---------------------------------------------	----

Table 1 - NONDEFINITIVE SPEC/STD DATA  
NONDEFINITIVE SPEC/STD DATA

<u>REPLY CODE</u>	<u>REPLY (AD08)</u>
AL	ALLOY
AN	ANNEX
AP	APPENDIX
AC	APPLICABILITY CLASS
AR	ARRANGEMENT
AS	ASSEMBLY
AB	ASSORTMENT
BX	BOX
CY	CAPACITY
CA	CASE
CT	CATEGORY
CL	CLASS
CE	CODE
CR	COLOR
CC	COMBINATION CODE
CN	COMPONENT
CP	COMPOSITION
CM	COMPOUND
CD	CONDITION
CS	CONSTRUCTION
DE	DESIGN
DG	DESIGNATOR
DW	DRAWING NUMBER
EG	EDGE
EN	END
FY	FAMILY
FG	FIGURE
FN	FINISH
FM	FORM
FA	FORMULA
GR	GRADE
GP	GROUP
BA	IMAGE COLOR
NS	INSERT
TM	ITEM

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<u>REPLY CODE</u>	<u>REPLY (AD08)</u>
KD	KIND
KT	KIT
LG	LENGTH
LT	LIMIT
MK	MARK
AA	MARKER
ML	MATERIAL
BB	MAXIMUM DENSITY
MH	MESH
ME	METHOD
BC	MINIMUM DENSITY
MD	MODEL
MT	MOUNTING
NR	NUMBER
PT	PART
PN	PATTERN
PC	PHYSICAL CONDITION
PS	PIECE
PL	PLAN
PR	POINT
QA	QUALITY
RN	RANGE
RT	RATING
RF	REFERENCE NUMBER
SC	SCHEDULE
SB	SECTION
SL	SELECTION
SE	SERIES
SV	SERVICE
SX	SET
SA	SHADE
SH	SHAPE
SG	SHEET
SZ	SIZE
PZ	SPECIES
SQ	SPECIFICATION SHEET
SD	SPEED
ST	STYLE
SS	SUBCLASS
SF	SUBFORM
SP	SUBTYPE
SN	SURFACE CONDITION
SY	SYMBOL
SM	SYSTEM
TB	TABLE
TN	TANNAGE
TP	TEMPER
TX	TEXTURE

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APPENDIX A

<u>REPLY CODE</u>	<u>REPLY (AD08)</u>
TK	THICKNESS
TT	TREATMENT
TR	TRIM
TY	TYPE
YN	UNIT
VA	VARIETY
WT	WEIGHT
WD	WIDTH

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APPENDIX B

REFERENCE DRAWING GROUP A Tables  
LENS, UNCUT AND LENS BLANK STYLES

INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.  
(e.g., ABMZJAA1.000\*; ABMZJLA25.4\*; ABMZJAB2.495\$\$JAC2.503\*)

When the source document specifies an option of either round or rectangular, enter Style 1 and  
reply to MRCs ABMZ, ABGL, HGTH and ABNM.

<u>REPLY CODE</u>	<u>REPLY (AA05)</u>
A	INCHES
L	MILLIMETERS

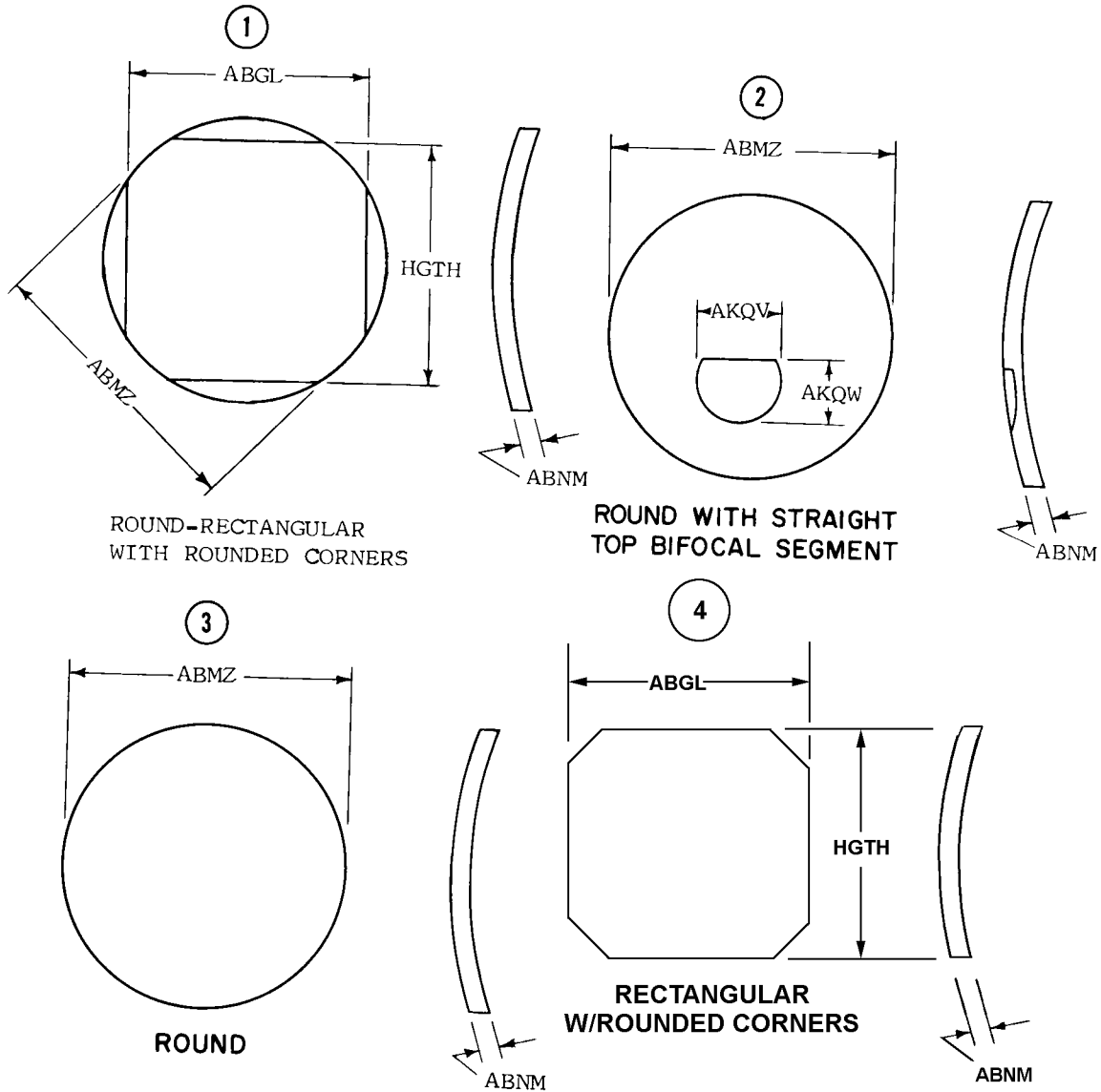
<u>REPLY CODE</u>	<u>REPLY (AC20)</u>
A	NOMINAL
B	MINIMUM
C	MAXIMUM

<u>MRC</u>	<u>Mode Code</u>	<u>Name of Dimension</u>
ABGL	J	WIDTH
ABMZ	J	DIAMETER
ABNM	J	THICKNESS
AKQV	J	READING SEGMENT DIAMETER
AKQW	J	READING SEGMENT HEIGHT
HGTH	J	HEIGHT

REFERENCE DRAWING GROUP A

These styles are designed to encompass the various styles of uncut lenses and lens blanks. Uncut lenses are finished on both surfaces but not yet cut to any shape or size. Lens blanks have been pressed in a glass mold to an approximate shape and size and may be semifinished or rough. Refer to American Standards Association Z80.1 for definitions, terms, prescription requirements, and test procedures peculiar to first quality glass for ophthalmic lenses.

LENS, UNCUT AND LENS BLANK STYLES



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APPENDIX B

REFERENCE DRAWING GROUP B Tables  
STANDARD SHAPE LENS STYLES

INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.  
(e.g., ABMZJAA1.000\*; ABMZJLA25.4\*; ABMZJAB2.495\$\$JAC2.503\*)

<u>REPLY CODE</u>	<u>REPLY (AA05)</u>
A	INCHES
L	MILLIMETERS

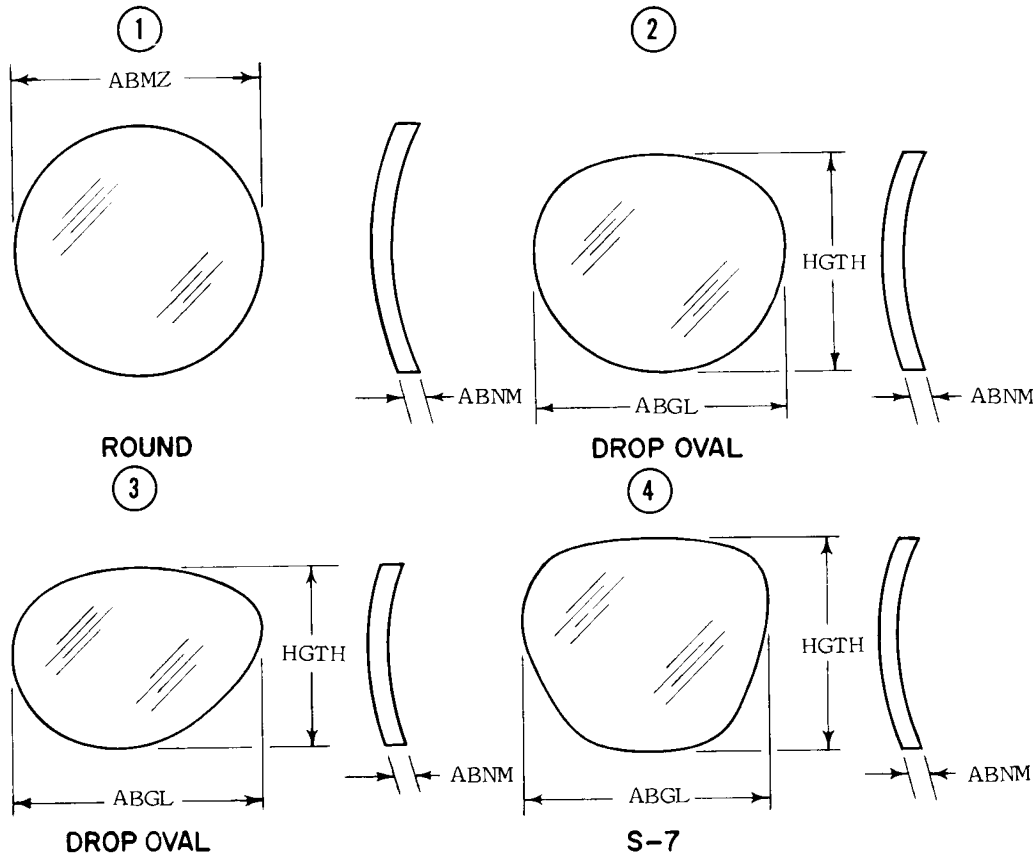
<u>REPLY CODE</u>	<u>REPLY (AC20)</u>
A	NOMINAL
B	MINIMUM
C	MAXIMUM

<u>MRC</u>	<u>Mode Code</u>	<u>Name of Dimension</u>
ABGL	J	WIDTH
ABMZ	J	DIAMETER
ABNM	J	THICKNESS
AKQV	J	READING SEGMENT DIAMETER
AKQW	J	READING SEGMENT HEIGHT
AKQX	J	READING SEGMENT WIDTH
AKQY	J	INTERMEDIATE SEGMENT HEIGHT
HGTH	J	HEIGHT

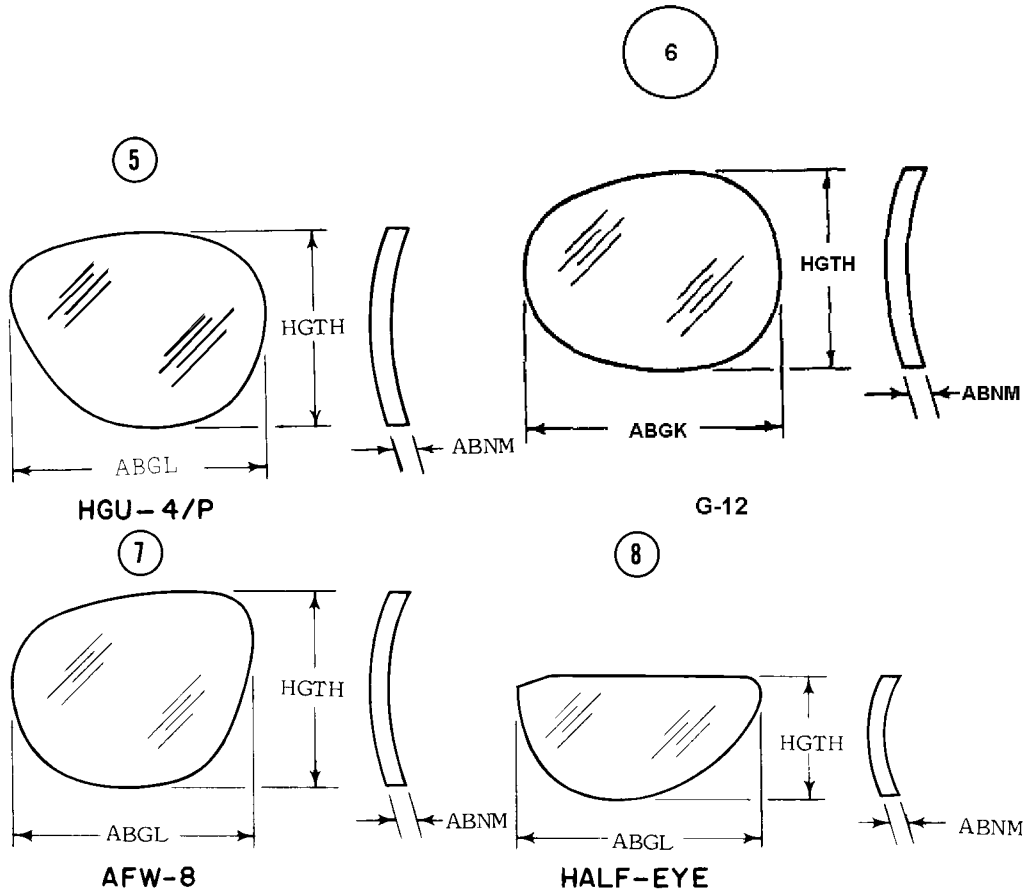
REFERENCE DRAWING GROUP B

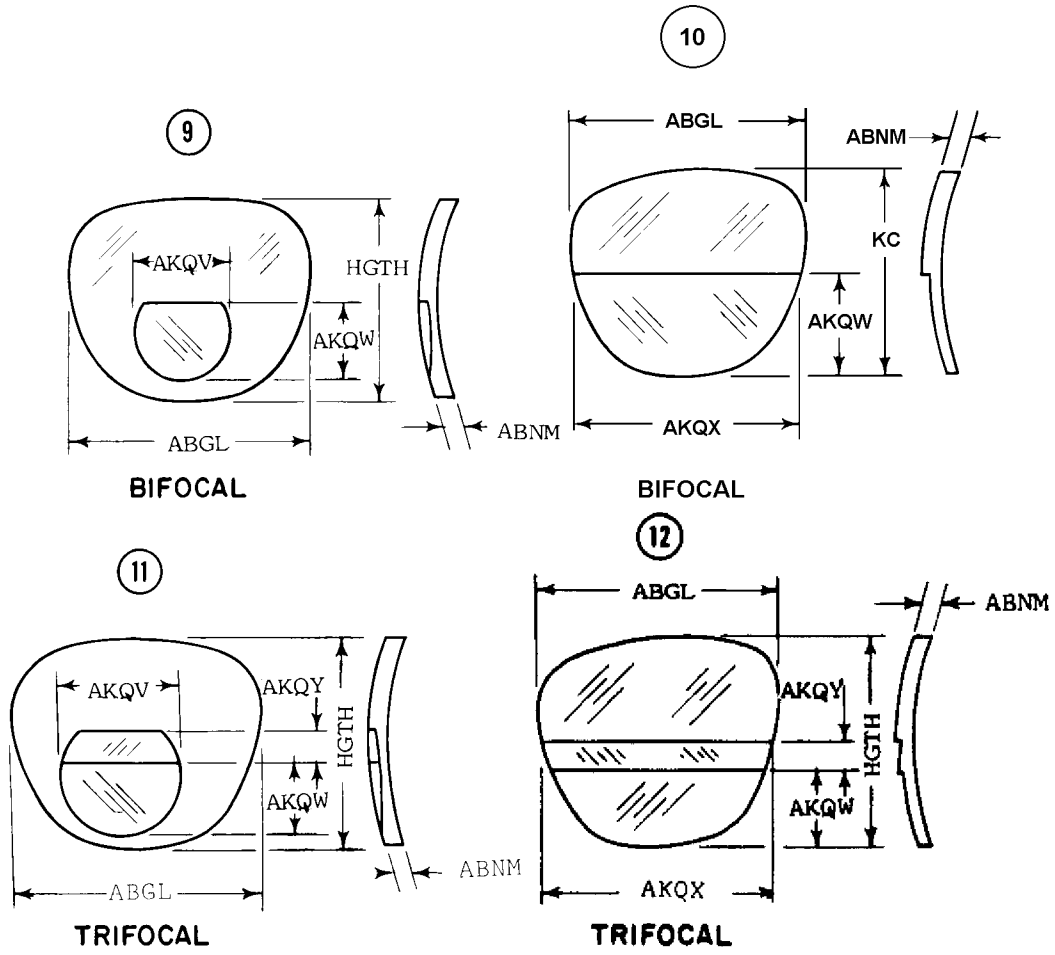
These styles are designed to encompass the various styles of standard lenses finished on both surfaces and cut to shape and size. Refer to American Standards Association Z80.1 for definitions, terms, prescription requirements, and test procedures peculiar to first quality glass for ophthalmic lenses.

STANDARD SHAPE LENS STYLES









### REFERENCE DRAWING GROUP C

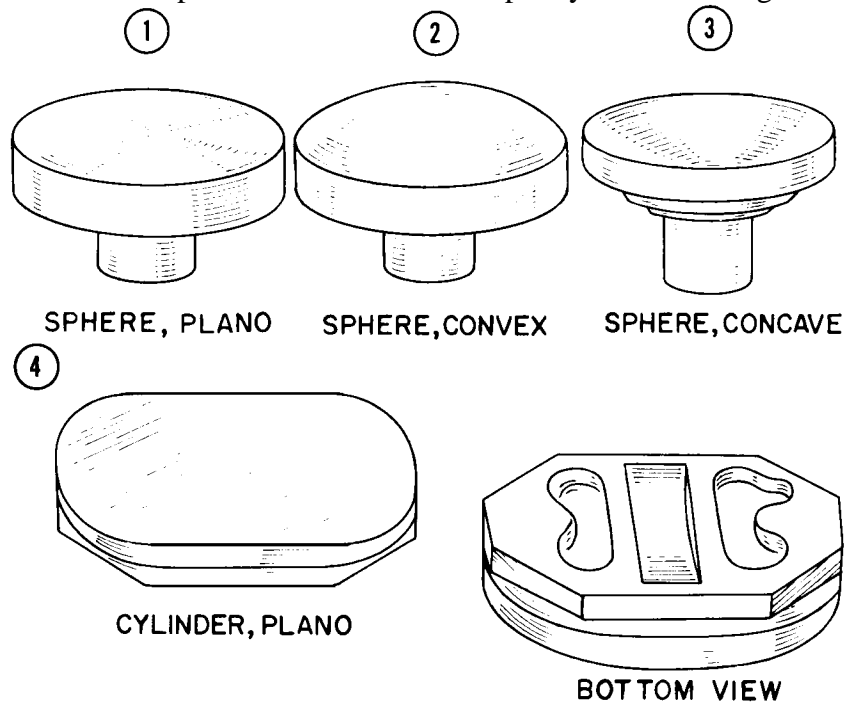
These styles are designed to encompass the various styles of laps used in the grinding and polishing of lenses. Refer to American Standards Association Z80.1 for definitions, terms, prescription requirements, and test procedures peculiar to first quality glass for ophthalmic lenses.

### LAP STYLES

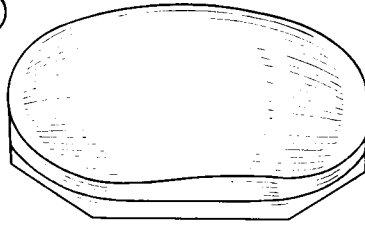
(No Requirements)

NOTE: CONCAVE FOR GRINDING CONVEX and CONVEX FOR GRINDING CONCAVE

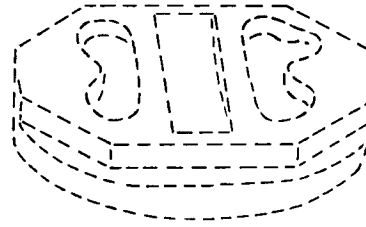
Lap dimensions are omitted since they are relative to surface curvature (diopter) of the lens and are included as pictorial aids in order to specify uniform designations.



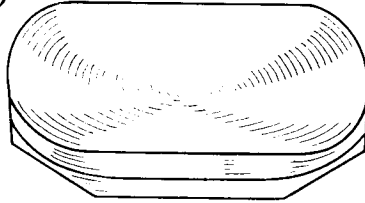
5



CYLINDER, CONVEX



6



CYLINDER, CONCAVE

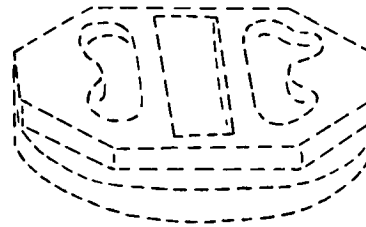


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REFERENCE DRAWING GROUP D Tables  
LENS AND LENS BLANK FORMS

INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.  
(e.g., AKQZJPA0.25\*; AKQZJPB3.01\$\$JPC4.24\*)

When the source document specifies PLANO (no diopter value), enter Reply Code A from Table 2. (e.g., AKQZJDA0.00\*)

NOTE: REFER TO APPENDIX C, TABLE 2, FOR CORRESPONDING DIOPTER POWERS  
TO FOCAL LENGTHS.

<u>REPLY CODE</u>	<u>REPLY (AH08)</u>
M	MINUS
D	PLANO
P	PLUS

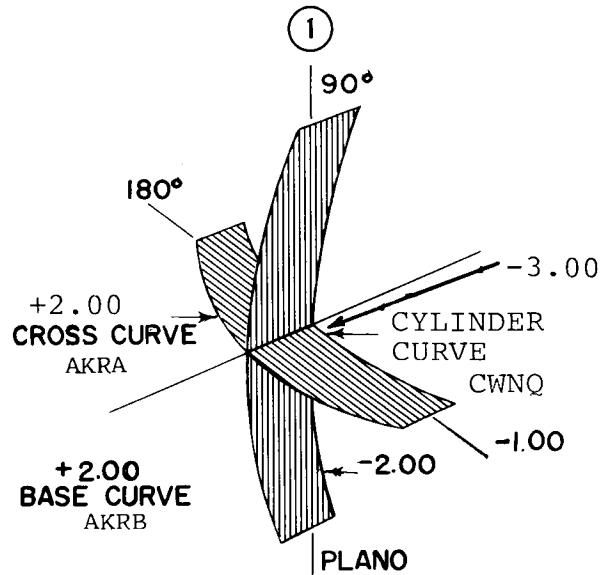
<u>REPLY CODE</u>	<u>REPLY (AC20)</u>
A	NOMINAL
B	MINIMUM
C	MAXIMUM

<u>MRC</u>	<u>Mode Code</u>	<u>Name of Dimension</u>
AKQZ	J	BASE CURVE DIOPTER (vertical)
AKRA	J	CROSS CURVE DIOPTER (horizontal)
AKRB	J	BASE CURVE PLANO (no diopter specified)
CWMT	J	SPHERE CURVE INSIDE DIOPTER
CWND	J	SPHERE CURVE OUTSIDE DIOPTER
CWNQ	J	CYLINDER CURVE INSIDE DIOPTER
CWPF	J	CYLINDER CURVE OUTSIDE DIOPTER

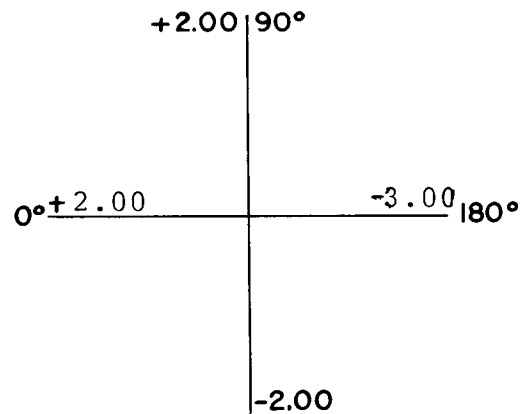
REFERENCE DRAWING GROUP D

These styles are designed to indicate the curvature of a lens (diopter value) at the principle meridians. Refer to American Standards Association Z80.1 for definitions, terms, prescription requirements, and test procedures peculiar to first quality glass for ophthalmic lenses.

LENS AND LENS BLANK FORMS

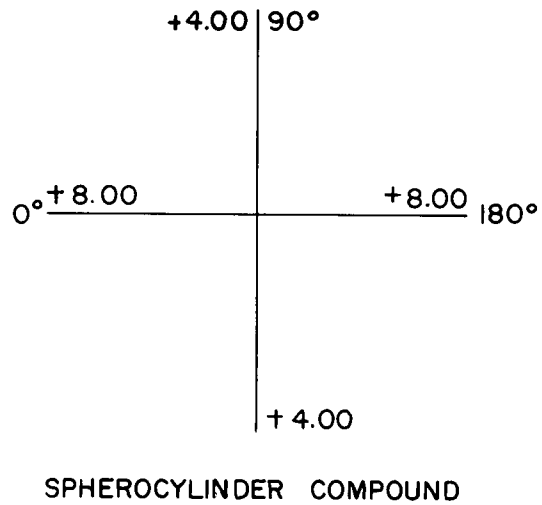
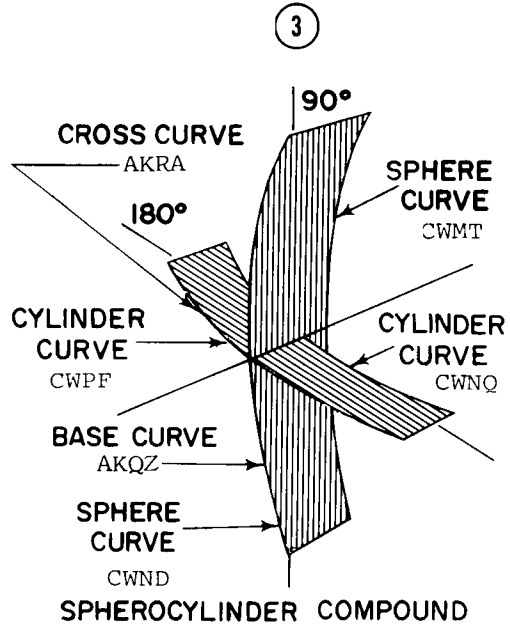
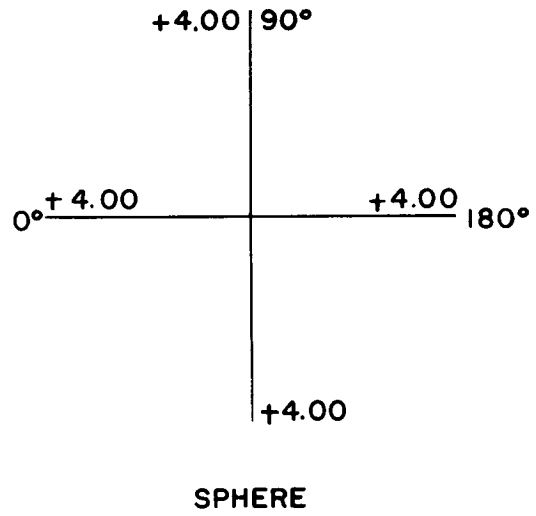
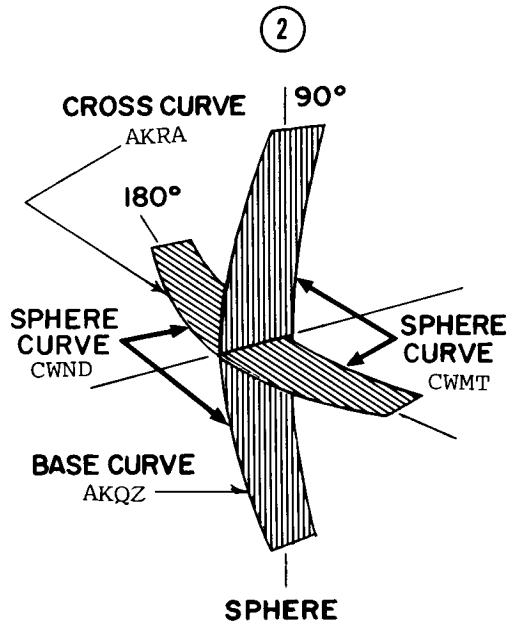


PLANO CYLINDER



PLANO CYLINDER

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APPENDIX B



## Technical Data Tables

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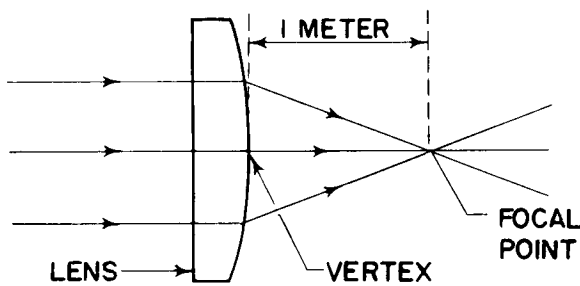
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STANDARD FRACTION TO DECIMAL CONVERSION CHART

<u>4ths</u>	<u>8ths</u>	<u>16ths</u>	<u>32nds</u>	<u>64ths</u>	<u>To 3</u>	<u>To 4</u>	<u>4ths</u>	<u>8ths</u>	<u>16ths</u>	<u>32nds</u>	<u>64ths</u>	<u>To 3</u>	<u>To 4</u>
				1/64	.016	.0156					33/64	.516	.5156
			1/32	-----	.031	.0312				17/32	-----	.531	.5312
				3/64	.047	.0469					35/64	.547	.5469
		1/16	-----		.062	.0625			9/16	-----	-----	.562	.5625
				5/64	.078	.0781					37/64	.578	.5781
			3/32	-----	.094	.0938				19/32	-----	.594	.5938
				7/64	.109	.1094					39/64	.609	.6094
	1/8	-----	-----	-----	.125	.1250		5/8	-----	-----	-----	.625	.6250
				9/64	.141	.1406					41/64	.641	.6406
			5/32	-----	.156	.1562				21/32	-----	.656	.6562
				11/64	.172	.1719					43/64	.672	.6719
		3/16	-----	-----	.188	.1875			11/16	-----	-----	.688	.6875
				13/64	.203	.2031					45/64	.703	.7031
			7/32	-----	.219	.2188				23/32	-----	.719	.7188
				15/64	.234	.2344					47/64	.734	.7344
1/4	-----	-----	-----	-----	.250	.2500	3/4	-----	-----	-----	-----	.750	.7500
				17/64	.266	.2656					49/64	.766	.7656
			9/32	-----	.281	.2812				25/32	-----	.781	.7812
				19/64	.297	.2969					51/64	.797	.7969
		5/16	-----	-----	.312	.3125			13/16	-----	-----	.812	.8125
				21/64	.328	.3281					53/64	.828	.8281
			11/32	-----	.344	.3438				27/32	-----	.844	.8438
				23/64	.359	.3594					55/64	.859	.8594
	3/8	-----	-----	-----	.375	.3750		7/8	-----	-----	-----	.875	.8750
				25/64	.391	.3906					57/64	.891	.8906
			13/32	-----	.406	.4062				29/32	-----	.906	.9062
				27/64	.422	.4219					59/64	.922	.9219
		7/16	-----	-----	.438	.4375			15/16	-----	-----	.938	.9375
				29/64	.453	.4531					61/64	.953	.9531
			15/32	-----	.469	.4688				31/32	-----	.969	.9688
				31/64	.484	.4844					63/64	.984	.9844
					.500	.5000						1.000	1.0000

## FOCAL LENGTH OF OPHTHALMIC LENSES FOCAL LENGTH OF OPHTHALMIC LENSES

The focal length of a lens is the distance at which it brings parallel rays to a focus, real or virtual, and is always reciprocal of its dioptrism. The refracting power of a lens is measured from its vertex, or the point where the principal axis cuts the surface, as though it were a single refracting power. (Reference Dept. of the Army Technical Manual TM8-237, para 13)

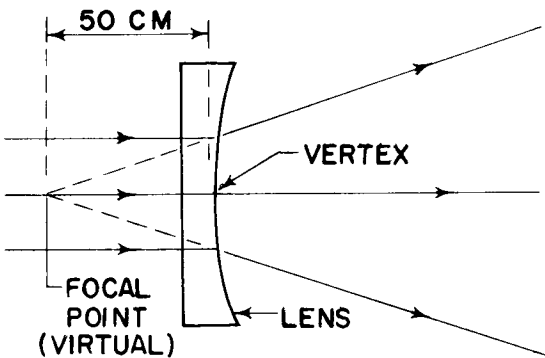


$$D = \frac{1M}{F} \quad F = 1M$$

$$D = ?$$

$$D = \frac{1M}{1M} = +1.00 = D$$

### FOCAL LENGTH OF A +1.00 DIOPTER LENS



$$D = \frac{100 \text{ CM}}{F} \quad F = 50 \text{ CM}$$

$$D = ?$$

$$D = \frac{100 \text{ CM}}{50 \text{ CM}} = -2.00 \text{ D}$$

### FOCAL LENGTH OF A -2.00 DIOPTER LENS

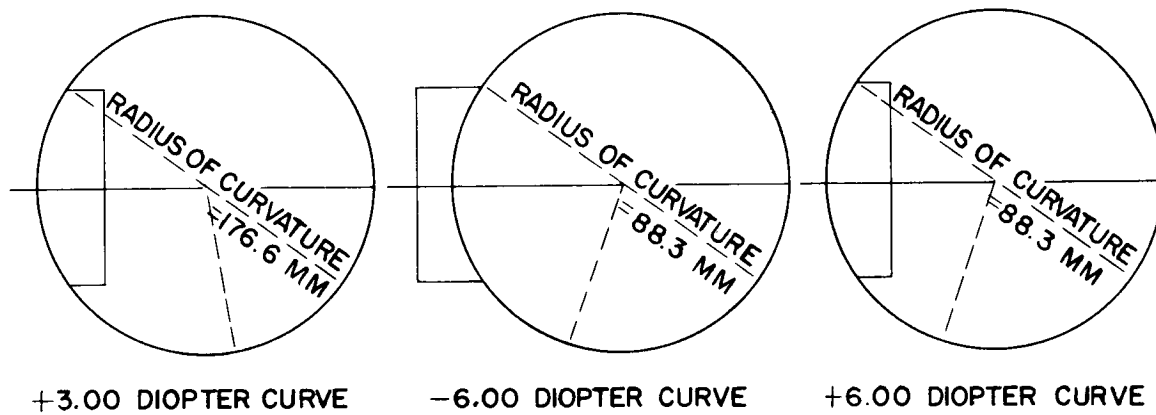
<u>DIOPTERS</u>	<u>MILLIMETERS</u>	<u>INCHES</u>
0.25	4000	157.48

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APPENDIX C

<u>DIOPTERS</u>	<u>MILLIMETERS</u>	<u>INCHES</u>
0.50	2000	78.74
0.75	1333	52.49
1.00	1000	39.37
1.25	800	31.50
1.50	666	26.25
1.75	572	22.50
2.00	500	19.68
2.25	444	17.50
2.50	400	15.75
2.75	364	14.32
3.00	333	13.12
3.25	308	12.11
3.50	286	11.25
3.75	267	10.50
4.00	250	9.84
4.25	236	9.26
4.50	222	8.75
4.75	211	8.28
5.00	200	7.87

## RADII OF CURVATURE OF DIOPTER TOOLS RADII OF CURVATURE OF DIOPTER TOOLS

The ordinary range in lens curvature, which includes practically all lens surfaces, is from 0.00 (written "plano") to 20.00 diopters. The shorter the radius of curvature, the greater will be the strength of a lens and the higher its dioptric power. (Reference Dept. of the Army Technical Manual TM 8-237, para 12)



### THE RELATION OF THE DIOPTER TO THE RADIUS OF CURVATURE

The following table gives a complete range of relationships between radius of curvature and diopters in quarter-diopter steps. Radius is in millimeters.

<u>DIOPTERS</u>	<u>RADIUS</u>
0.25	2120.0
0.50	1060.0
0.75	706.7
1.00	530.0

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<u>DIOPTERS</u>	<u>RADIUS</u>
-----------------	---------------

1.25	424.0
------	-------

1.50	353.3
------	-------

1.75	302.9
------	-------

2.00	265.0
------	-------

2.25	235.6
------	-------

2.50	212.0
------	-------

2.75	192.7
------	-------

3.00	176.6
------	-------

3.25	163.1
------	-------

3.50	151.4
------	-------

3.75	141.3
------	-------

4.00	132.5
------	-------

4.25	124.7
------	-------

4.50	117.8
------	-------

4.75	111.6
------	-------

5.00	106.0
------	-------

5.25	101.0
------	-------

5.50	96.4
------	------

5.75	92.2
------	------

6.00	88.3
------	------

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<u>DIOPTERS</u>	<u>RADIUS</u>
-----------------	---------------

6.25	84.8
------	------

6.50	81.5
------	------

6.75	78.5
------	------

7.00	75.7
------	------

7.25	73.1
------	------

7.50	70.7
------	------

7.75	68.4
------	------

8.00	66.2
------	------

8.25	64.2
------	------

8.50	62.4
------	------

8.75	60.6
------	------

9.00	58.9
------	------

9.25	57.3
------	------

9.50	55.8
------	------

9.75	54.4
------	------

10.00	53.0
-------	------

10.25	51.7
-------	------

10.50	50.5
-------	------

10.75	49.3
-------	------

11.00	48.2
-------	------

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APPENDIX C

<u>DIOPTERS</u>	<u>RADIUS</u>
-----------------	---------------

11.25	47.1
-------	------

11.50	46.1
-------	------

11.75	45.1
-------	------

12.00	44.2
-------	------

12.25	43.3
-------	------

12.50	42.4
-------	------

12.75	41.6
-------	------

13.00	40.8
-------	------

13.25	40.0
-------	------

13.50	39.3
-------	------

13.75	38.6
-------	------

14.00	37.9
-------	------

14.25	37.2
-------	------

14.50	36.6
-------	------

14.75	35.9
-------	------

15.00	35.3
-------	------

15.25	34.8
-------	------

15.50	34.2
-------	------

15.75	33.6
-------	------

16.00	33.1
-------	------

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APPENDIX C

<u>DIOPTERS</u>	<u>RADIUS</u>
-----------------	---------------

16.25	32.6
-------	------

16.50	32.1
-------	------

16.75	31.6
-------	------

17.00	31.2
-------	------

17.25	30.7
-------	------

17.50	30.3
-------	------

17.75	29.9
-------	------

18.00	29.4
-------	------

18.25	29.0
-------	------

18.50	28.6
-------	------

18.75	28.3
-------	------

19.00	27.9
-------	------

19.25	27.5
-------	------

19.50	27.2
-------	------

19.75	26.8
-------	------

20.00	26.5
-------	------

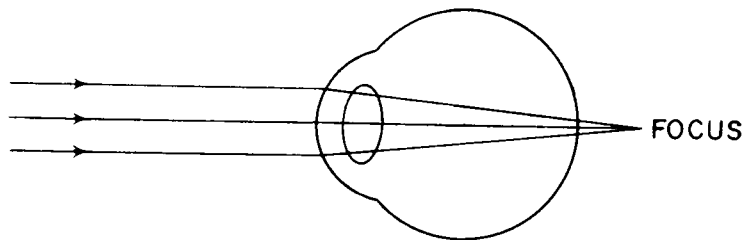


VISION DEFECTS  
VISION DEFECTS (CONT'D)  
VISION DEFECTS (CONT'D)

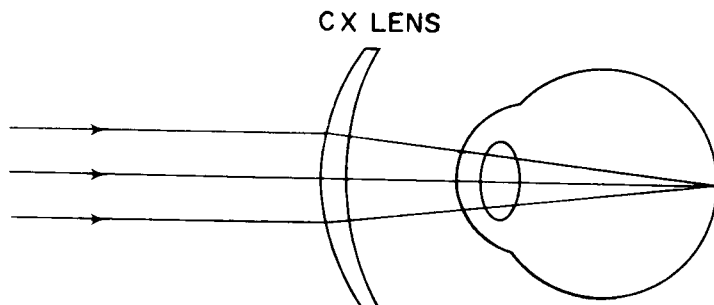
Common defects of vision fall into two general categories. Those pertaining to sight itself and those which result from muscular disorder. Lenses shown in Appendix B, Reference Drawing Groups A and B, are for the more common defects of vision listed below:

Common Name	Technical Name	Correctable with
Farsightedness	Hyperopia	Plus lens
Nearsightedness	Myopia	Minus lens
Old-age sight	Presbyopia	Plus lens or bifocal
Astigmatism	Astigmatism	Cylinder or spherocylinder
Cross-eyes	Strabismus	Prismatic lens
Wall eyes	Heterophoria	Prismatic lens

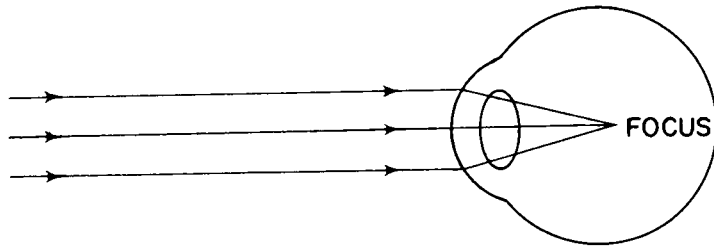
The latter two conditions are due to muscular unbalance and the technical terms are synonymous. (Reference Dept. of the Army Technical Manual TM8-237, para 25d)



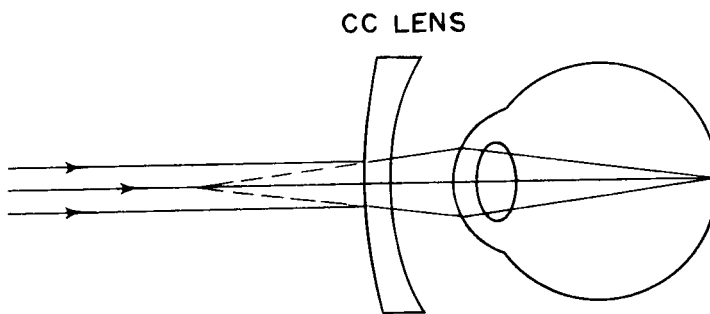
HYPEROPIC EYE



HYPEROPIC REFRACTIVE ERROR CORRECTED WITH PLUS LENS

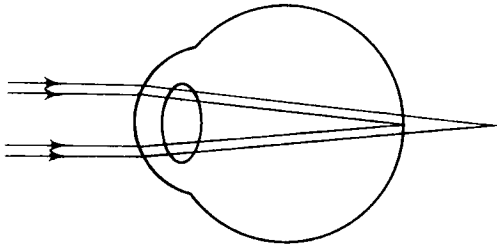


MYOPIC EYE

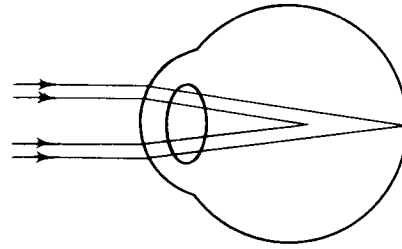


MYOPIC REFRACTIVE ERROR CORRECTED WITH MINUS LENS

FIG A220  
APPENDIX C

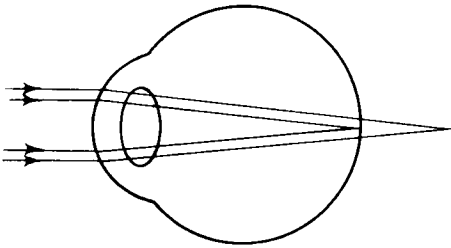


SIMPLE HYPEROPIC ASTIGMATISM

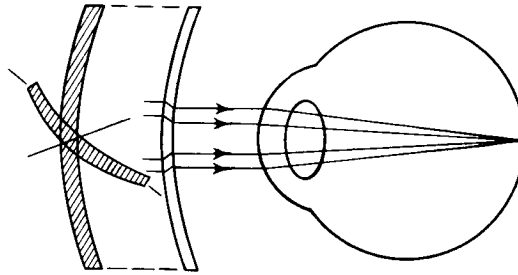


SIMPLE MYOPIC ASTIGMATISM

HYPEROPIC AND MYOPIC ASTIGMATISM



SIMPLE HYPEROPIC ASTIGMATISM  
UNCORRECTED



SPHEROCYLINDER LENS CORRECTED

SIMPLE HYPEROPIC ASTIGMATISM CORRECTED WITH A SPHEROCYLINDER LENS

OUNCE TO DECIMAL OF A POUND CONVERSION CHART

<u>OUNCES</u>	<u>POUNDS</u>
1	0.062
2	0.125
3	0.188
4	0.250
5	0.312
6	0.375
7	0.438
8	0.500
9	0.562
10	0.625
11	0.688

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<u>OUNCES</u>	<u>POUNDS</u>
12	0.750
13	0.812
14	0.875
15	0.938
16	1.000

## **FIIG Change List**

FIIG Change List, Effective June 4, 2010

This change replaced with ISAC or and/or coding.